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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,866	10/09/2001	Michael Roreger	F-7104	4132

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EXAMINER

LORENZO, JERRY A

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 05/21/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/914,866

ROREGER ET AL.

Examiner

Jerry A. Lorengo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9. 6) ☐ Other: .

DETAILED ACTION

(1)

Specification

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

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- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

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- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

(2)

The disclosure is objected to because of the following informalities:

The Title of the Invention set forth at the top of the first page of the specification does not match that set forth in the Application Data Sheet.

The fourth full paragraph appearing on page 5 of the specification contains a reference to claim 1. Such references to claims should be avoided given the fact that claims disclosure often change during the process of examination.

Appropriate correction is required.

(3)

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 6 discloses, in part, that the “active substance applied in step a) contains auxiliaries.” There is, however, no mention of “auxiliaries” in the specification and the examiner does not understand it what is meant by the term “auxiliaries.” It has been assumed for purposes of examination that the term auxiliary refers to materials such as solvents, diluents, etc.

(4)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

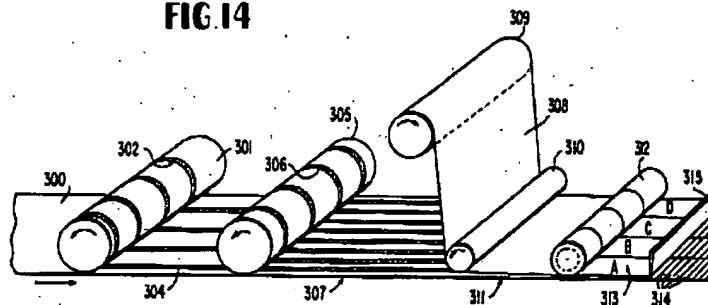
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,666,767 to Von Kohorn et al.

Regarding applicant claim 1, Von Kohorn et al. disclose a method for the formation of a sheet material containing an active substance capable of diffusing through the sheet material comprising the steps of:

- (1) Providing a first 300 and second 308 base material, which may be identical in composition (Figure 14; column 10, lines 3-36; column 21, lines 49-68; column 22, lines 1-22);
 - (2) Applying at least one active substance 304 onto the first base material 300 (Figure 14; column 10, lines 7-20); and
 - (3) Placing the second base material 309 over the first base material 300 having the active substance 304 applied thereto and heat seal bonded thereto (column 10, lines 20- lines 25-28).
- The method of Von Kohorn et al. is illustrated below:

FIG. 14

Although Von Kohorn et al. disclose that following formation, the active substance 304 is capable of diffusing/migrating through each of the first 300 and second 308 base materials (column 12, lines 23-37), they do specifically disclose, as per step c) of applicant claim 1, that the laminated sheet material is stored for a predetermined amount of time under defined conditions to effect migration of the active substance into the base material layers 300,309 to form, in essence, a single-layer homogenous matrix in which the active substance is substantially uniformly distributed.

It would have been obvious to one of ordinary skill in the art at the time of invention that the sheet materials formed by the method of Von Kohorn et al. would be capable of forming a sheet material in which the active substance is substantially uniformly distributed motivated by the fact that Von Kohorn et al. disclose that such sheet materials are capable of attaining a state of equilibrium composition with regards to the concentration of the active substance throughout the laminate wherein the equilibrium composition is determined after a predetermined time of aging, i.e., a predetermined amount of time of storage (column 23, lines 1-48; and Table set forth in columns 23 and 24).

Although Von Kohorn et al. do not specifically disclose the conditions under which the sheet materials are aged, such as the temperatures set forth in applicant claims 4 and 17, it would have been obvious to one of ordinary skill in the art at the time of invention that the aging parameters, especially temperature, would have a direct and quantifiable effect upon the rate of diffusion of the active substance through the sheet material given the fact that diffusion, as defined by the Stokes-Einstein relationship (given below), is directly proportional to temperature:

$$D_s = (kT)/(6\pi\eta r_s)$$

where:

k = Boltzmann constant

T = absolute temperature, K;

η = fluid viscosity;

r_s = radius of solute particle

As per applicant claim 6, Von Kohorn et al. disclose that the active substance may be mixed with “auxiliaries” such as solvents (column 10, lines 66-68; column 11, lines 1-2).

As per applicant claim 7, Von Kohorn et al. disclose that the application of the active substance 304 is accomplished continuously by way of application roller 301 (Figure 14).

As per applicant claim 8, Von Kohorn et al. disclose that the first 300 and second 308 base materials can be self-adhesive and joined by heat sealing (Figure 14; column 10, lines 19-28)

As per applicant claim 9, Von Kohorn et al. disclose that the active substance may be thermally labile and highly volatile which evaporate from the surface of the sheet material upon diffusion there through (column 12, lines 23-37; columns 19 and 20, Table 1 - continued).

As per applicant claim 10, Von Kohorn et al. disclose that the first 300 and second 308 base materials may be composed of polyamide, cellophane (a cellulose derivative), etc. (column 21, lines 40-48).

As per applicant claim 11, Von Kohorn et al. disclose that the active substance may be mixed with an adhesive (tackifying) material (column 11, lines 3-6).

As per applicant claim 12, Von Kohorn et al. disclose that the active substance may comprise a pheromone attractant such as 9,12 tetradecadienyl acetate (column 19, table II).

As per applicant claim 13, Von Kohorn et al. disclose that the first base material 300 contains an active substance 304 applied thereto by coating roller 301 (Figure 14).

As per applicant claim 14, Von Kohorn et al. disclose that the active substance may comprise dimethoate (column 20, line 66).

As per applicant claims 15 and 18, Von Kohorn et al. disclose that the active substance may be applied in a pattern such as stripes, dots, etc (column 11, lines 10-13).

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(5)

Claims 2, 3, 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,666,767 to Von Kohorn et al., as applied in section (4), above, in view of GB 2131740 A to Senninger and U.S. Patent No. 3,625,875 to Frauenglass et al.

Although Von Kohorn et al., as set forth in section (4), above, disclose a methods for the formation of sheet materials having an active agent incorporated therein which may diffuse uniformly throughout the laminated sheet material after formation, they do not specifically disclose, as per applicant claims 2, 3, 5 and 16, the viscosity of the active material applied, the pressure at which it is applied by metering, or the pressures utilized in the laminating of the coated base materials.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the active substance of Von Kohorn et al. by way of metered dispensing, per applicant claim 2, motivated by the fact that Senninger, also drawn to methods of producing sheet materials formed from laminates with interposed active materials, discloses that the manner of application of pesticide and other features may vary to suit particular requirements (page 3, lines 112-116) and furthermore by the fact that Frauenglass et al. disclose that the use of apportioning applicators designed for metering precise amounts of liquids and dispensing them to a specific location (metered dispenser) is a conventional method of applying coatings (column 6, lines 55-59).

Finally, the pressure of metering, the viscosity of the active substance and the pressures utilized during lamination would have been the result of routine experimentation by one of ordinary skill in the art at the time of invention taking into consideration the materials to be coated, the glass transition temperature of the materials to be laminated, the method of lamination, etc.

(6)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (703) 306-9172. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

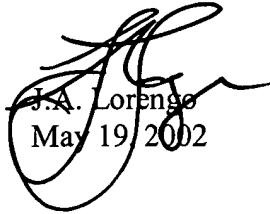
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 305-3599 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



J.A. Lorengo
May 19, 2002